

Disclosure," since the Examiner has not crossed through the citation, the Applicant respectfully submits that the Examiner has fully considered the Information Disclosure Statement filed June 29, 1999, including the "IBM Technical Disclosure."

Claims 6-11 are pending in the present application, of which claims 6 and 9-11 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraphs 4 and 5 of the Official Action reject claims 6-11 as obvious based on the combination of U.S. Patent No. 5,905,555 to Yamazaki et al. and JP 63-076474 to Takahata. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

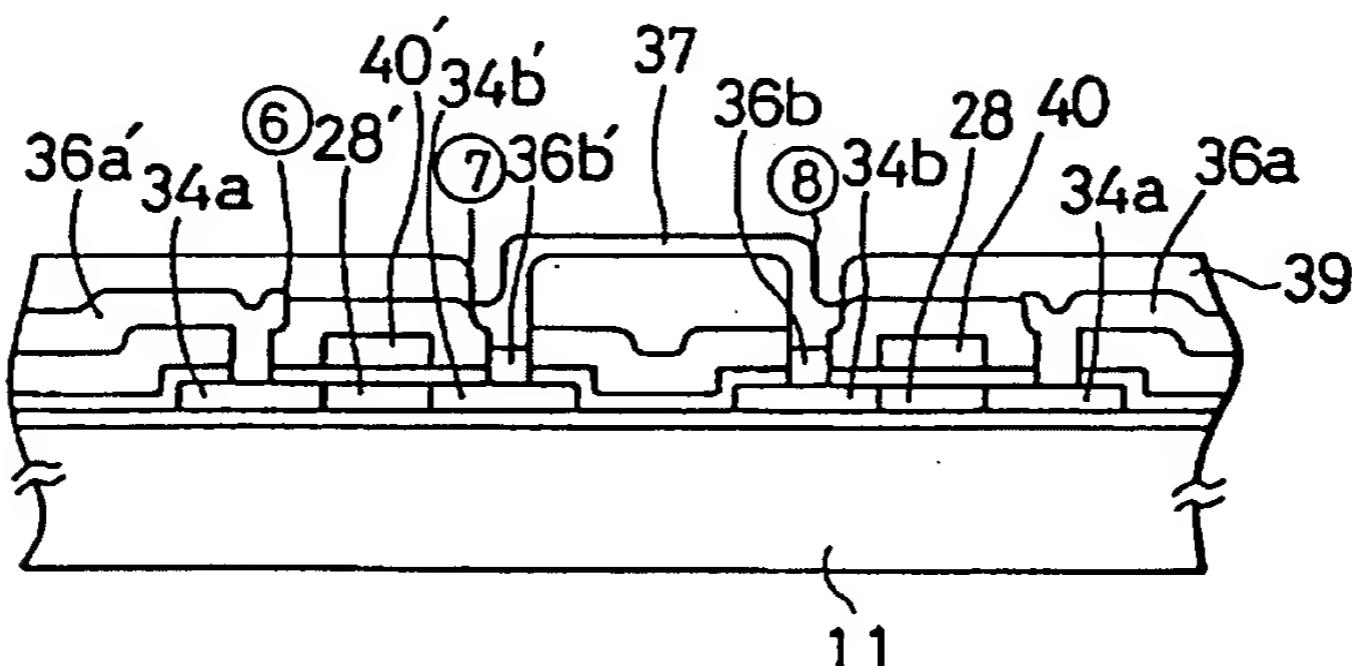
There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Yamazaki

and Takahata or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be modified in the manner asserted in the Official Action, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

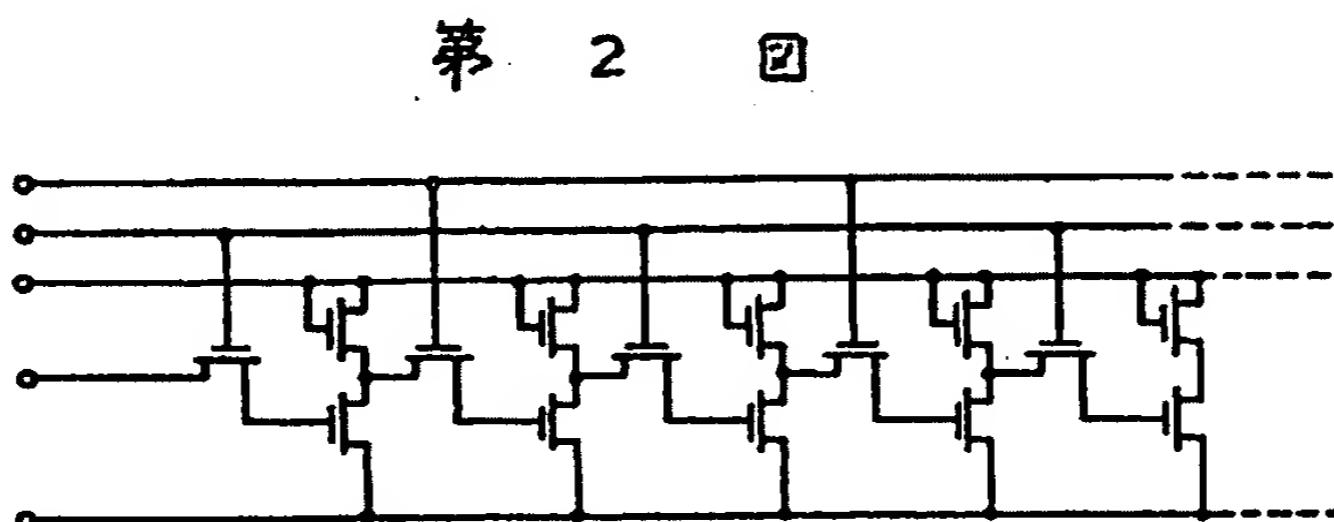
The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action relies on a thin film transistor for a pixel, as shown in Figure 8(F) of Yamazaki, to allegedly teach first and second semiconductor islands, channel region 28/28' and a pair of impurity regions 34a/34b, 34a'/34b', first and second gate electrodes 40/40', etc. (pages 2-3, Paper No. 20051223'; Figure 8(F) reproduced below).

FIG. 8 (F)



The Official Action concedes that Yamazaki "lacks anticipation of a wiring for electrically connecting one of the impurity regions of the first semiconductor island with the second gate electrode" (page 3, *Id.*). The Official Action asserts that Figure 2 of Takahata teaches the above-referenced features missing from Yamazaki (pages 3-4, *Id.*; Figure 2 reproduced below).



The Official Action asserts that it would have been obvious "to modify Yamazaki's device by incorporating [Takahata's] teachings since that would enhance speed as taught by Takahata" (page 4, *Id.*). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

Figure 8(F) of Yamazaki is directed to a thin film transistor for a pixel; however, Figure 2 of Takahata is directed to a shift register circuit. The Applicant respectfully submits that the Official Action is applying an improper "obvious to try" rationale in support of the alleged obviousness rejection. Specifically, Takahata does not give an

indication that a wiring for electrically connecting one of the impurity regions of the first semiconductor island with the second gate electrode is critical. Also, Takahata does not teach or suggest a direction as to which of many possible choices is likely to be successful. (See MPEP § 2145.X.B.) The Official Action has not shown why the thin film transistor for a pixel shown in Figure 8(F) of Yamazaki should be modified so as to include the wiring of the shift register circuit shown in Figure 2 of Takahata.

Further, it is not sufficient to merely point out the advantages of two references and assert that it would have been obvious to combine the two references so that you can have both advantages in one device. Rather, in order to form a *prima facie* case of obviousness, the Official Action must show why the references should have been combined.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Yamazaki and Takahata or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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